



lacing accurate, timely information in the hands of decision makers is vital to a safe, effective response to a chemical incident.

Computer-Aided Management of Emergency
Operations (CAMEO®) is an integrated set of applications
jointly developed by the U.S. Department of Commerce's
(DOC) National Oceanic and Atmospheric
Administration (NOAA) and the U.S.
Environmental Protection Agency
(EPA). CAMEO is designed to help
first responders and emergency planners
respond to and plan for chemical

The ALOHA atmospheric dispersion model (separate info sheet available) provides an estimate of the potential downwind dispersion of a chemical cloud. Graphical outputs include the cloud's footprint, source strength, and chemical concentration curves.

The output from ALOHA can be displayed in MARPLOT, the mapping module. The user can compare the footprint

location with information concerning the location of facilities storing hazardous materials and special-concern populations such as hospitals, and schools, found in MARPLOT. Important data about these locations, such as emergency contacts, hours of operation, and potential affected population, can be displayed in CAMEO

information modules to help with decisions about the degree of hazard posed by the incident.

## **Critical Response Information**

The CAMEO system includes

accidents.

- a database of hazardous chemicals,
- MARPLOT®, a map display application, and
- ALOHA®, an application for predicting the movement of hazardous chemical clouds in the atmosphere.

All modules work interactively to display critical information in a timely fashion.

The Chemical Library module contains response recommendations for approximately 6,000 chemicals and includes 100,000 chemical synonyms and identification numbers which aid the emergency responder in identifying unknown substances in an incident. Once a chemical is identified, CAMEO's Response Information Data Sheets (RIDS) provide fire fighting, physical properties, health hazards, first aid and spill response recommendations, along with information about air and water hazards. In addition, with the Reactivity Worksheet, CAMEO provides a way to virtually "mix" chemicals to find out what dangers could arise from accidental combinations.

## **CAMEO International**

CAMEO is used widely in the U.S., and also is a major component of the United Nations Environment Programme's Awareness and Preparedness for Emergencies at the Local Level (APELL) program. CAMEO has been demonstrated or taught in 50 countries as part of the APELL workshops on community preparedness for chemical accidents. CAMEO has been translated into French and Spanish. Additionally, the program has been distributed to more than 20 countries outside the APELL program.

The CAMEO software is available for free download for Macintosh and Windows-compatible computers from http://www.epa.gov/ceppo/cameo.

For additional information visit http://response.restoration. noaa.gov, e-mail orr.cameo@noaa.gov, or call 206/526-6317.



